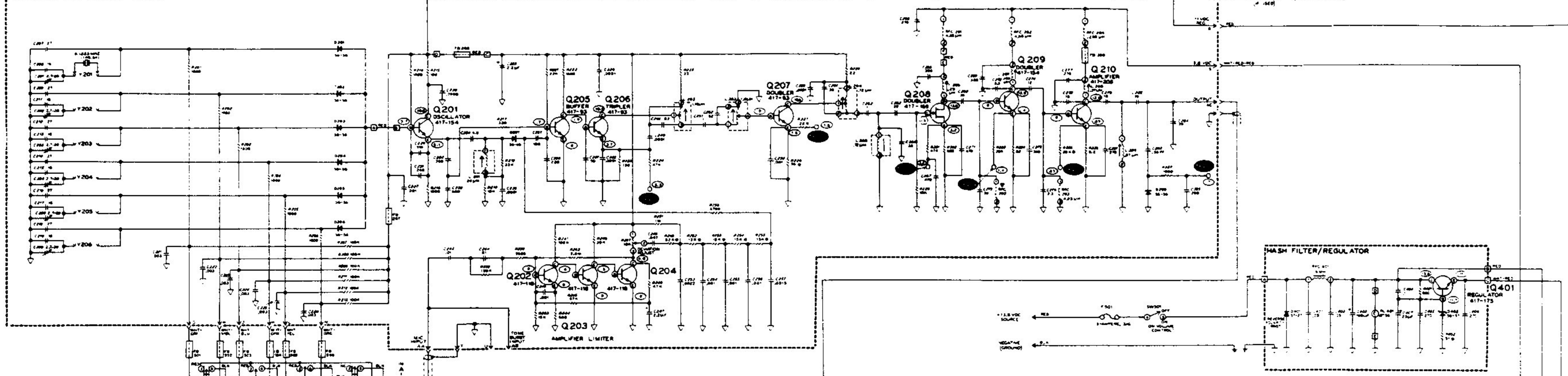
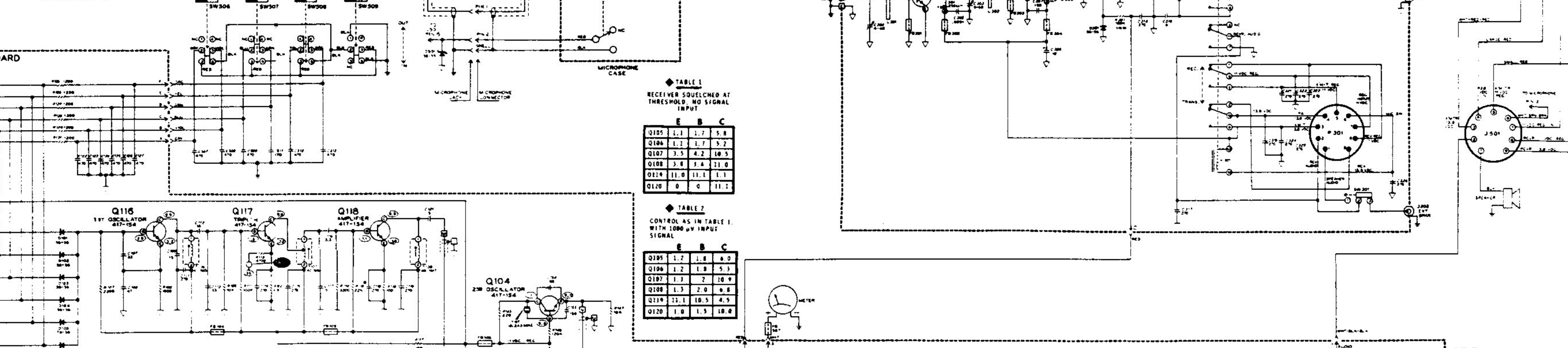


- NOTES**
- COMPONENT NUMBERS ARE IN THE FOLLOWING GROUPS:  
 100-199 PARTS ON THE RECEIVER CIRCUIT BOARD  
 200-299 PARTS ON THE TRANSMITTER CIRCUIT BOARD  
 300-399 PARTS ON THE POWER AMPLIFIER CIRCUIT BOARD  
 400-499 PARTS ON THE HASH FILTER/REGULATOR CIRCUIT BOARD  
 500-599 PARTS ON THE CHASSIS
  - ALL RESISTORS ARE 1/2 WATT 10% TOLERANCE UNLESS OTHERWISE NOTED. RESISTOR VALUES ARE IN OHMS, K=1000, M=1,000,000.
  - CAPACITORS LESS THAN 1 ARE IN P.F. (PICOFARADS); ALL OTHER CAPACITORS ARE IN M.F. (MICROFARADS); UNLESS OTHERWISE MARKED.
  - INDUCTORS ARE SHOWN IN MH (MILLIHENRIES) AND  $\mu$ H (MICROHENRIES).
  - ARROWS AT CONTROLS INDICATE CLOCKWISE ROTATION VIEWED FROM THE SHAFT END OF THE CONTROL.
  - THIS SYMBOL AROUND A PART NUMBER MEANS THAT THIS COMPONENT IS MOUNTED ON THE CHASSIS, THOUGH ITS LOCATION ON THE SCHEMATIC SUGGESTS OTHERWISE.
  - THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE MEASURED WITH A HIGH INPUT IMPEDANCE VOLTMETER FROM THE POINT INDICATED TO CHASSIS GROUND UNDER THE FOLLOWING CONDITIONS:  
 1. NO SIGNAL INPUT  
 2. RECEIVER SQUELCHED AT THRESHOLD  
 3. VOLUME FULLY COUNTERCLOCKWISE  
 4. LOWEST FREQUENCY RECEIVER OSCILLATOR CRYSTAL SELECTED  
 5. TRANSMITTER VOLTAGES KEYS WITHOUT MODULATION
  - THIS SYMBOL INDICATES CIRCUIT BOARD GROUND.
  - THIS SYMBOL INDICATES CHASSIS GROUND.
  - THIS SYMBOL INDICATES A CIRCUIT BOARD CONNECTOR PIN AND A FEMALE WIRE CONNECTOR.
  - THIS SYMBOL INDICATES A SOLDERED CONNECTION TO A CIRCUIT BOARD.
  - SEE TABLES 1 AND 2 FOR VOLTAGES.
  - THIS SYMBOL DESIGNATES A 5% TOLERANCE RESISTOR.
  - THIS SYMBOL DENOTES A COIL WOUND BY THE KIT BUILDER.
  - REFER TO THE "CHASSIS PHOTOGRAPHS" AND "CIRCUIT BOARD X-RAY VIEWS" FOR THE PHYSICAL LOCATION OF PARTS.
  - P301 AND J501 ARE MATING SIDE VIEWS.
  - TP-TEST POINT  
 FB-FERRITE BEAD
  - THIS SYMBOL INDICATES A RECTIFIED VOLTAGE MEASURED WITH A HIGH INPUT IMPEDANCE VOLTMETER. USE A 100K $\Omega$  RESISTOR IN SERIES WITH THE VOLTMETER PROBE.

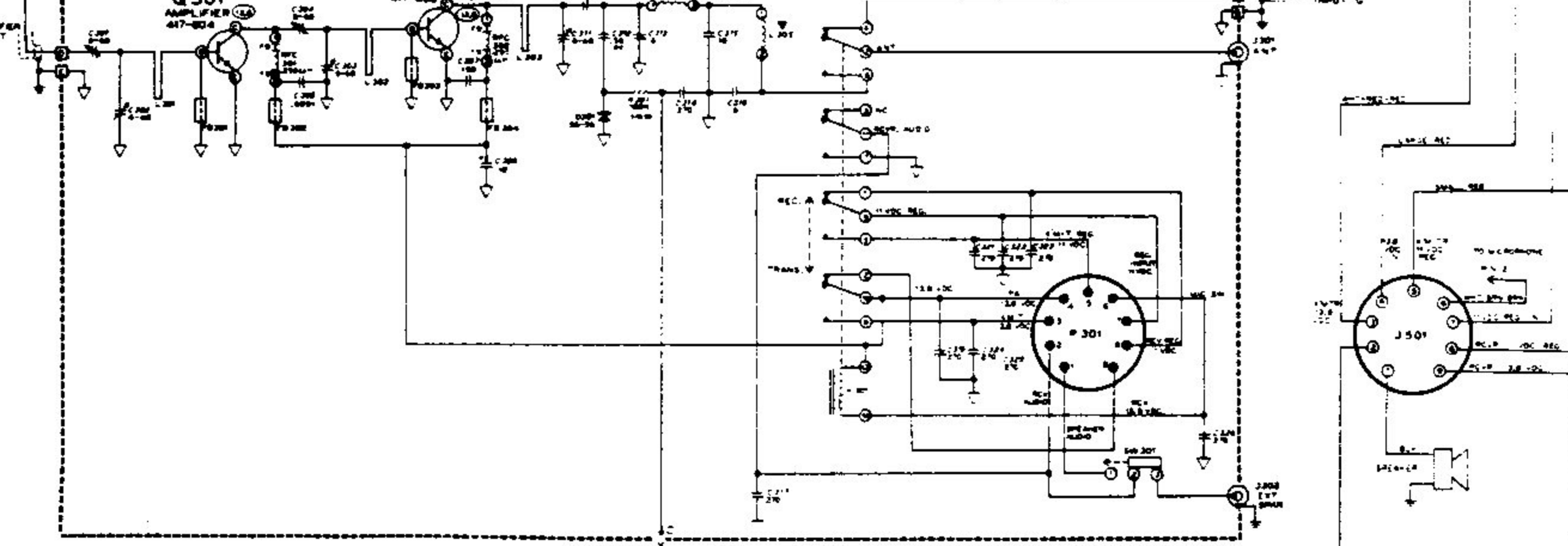
**TRANSMITTER CIRCUIT BOARD**



**SCHEMATIC OF THE HEATHKIT<sup>®</sup> 2-METER FM TRANSCEIVER MODEL HW-202**



**POWER AMPLIFIER CIRCUIT BOARD**



**HASH FILTER/REGULATOR**

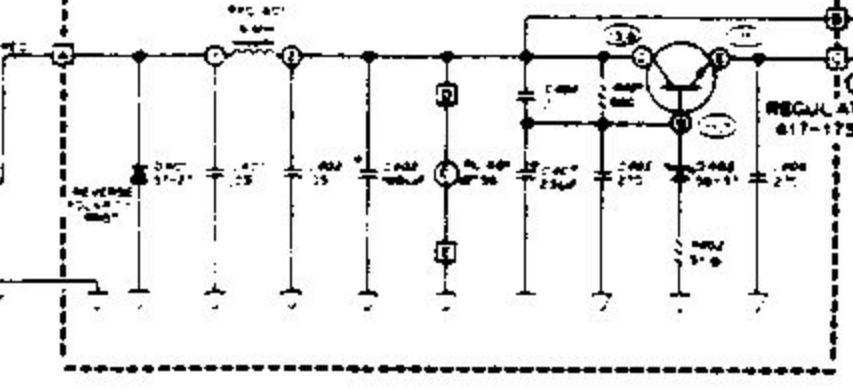


TABLE 1  
RECEIVER SQUELCHED AT THRESHOLD, NO SIGNAL INPUT

	E	B	C
Q105	1.1	1.7	5.8
Q106	1.1	1.7	5.2
Q107	3.5	4.2	10.3
Q108	3.8	3.4	21.0
Q119	11.0	11.1	1.1
Q120	0	0	11.1

TABLE 2  
CONTROL AS IN TABLE 1, WITH 1000  $\mu$ V INPUT SIGNAL

	E	B	C
Q105	1.2	1.8	6.0
Q106	1.2	1.8	5.3
Q107	1.3	2	10.9
Q108	1.3	2.0	6.8
Q119	11.1	10.5	4.5
Q120	1.0	1.5	10.8

NOTES

1. COMPONENT NUMBERS ARE IN THE FOLLOWING GROUPS

- 100-199 } PARTS ON THE RECEIVER CIRCUIT BOARD
- 1101-1199 } PARTS ON THE TRANSMITTER CIRCUIT BOARD
- 200-299 } PARTS ON THE POWER AMPLIFIER CIRCUIT BOARD
- 300-399 } PARTS ON THE POWER AMPLIFIER CIRCUIT BOARD
- 400-499 } PARTS ON THE MASH FILTER/REGULATOR CIRCUIT BOARD
- 500-599 } PARTS ON THE CHASSIS

2. ALL RESISTORS ARE 1/2 WATT 10% TOLERANCE UNLESS OTHERWISE NOTED. RESISTOR VALUES ARE IN OHMS, K=1000, M=1 000 000.

3. CAPACITORS LESS THAN 1 ARE IN  $\mu$ F (MICROFARADS); ALL OTHER CAPACITORS ARE IN pF (PICOFARADS) UNLESS OTHERWISE MARKED.

4. INDUCTORS ARE SHOWN IN MM (MILLIMETERS) AND  $\mu$ H (MICROHENRIES).

5. ARROWS AT CONTROLS INDICATE CLOCKWISE ROTATION VIEWED FROM THE SHAFT END OF THE CONTROL.

6. THIS SYMBOL AROUND A PART NUMBER MEANS THAT THIS COMPONENT IS MOUNTED ON THE CHASSIS THOUGH ITS LOCATION ON THE SCHEMATIC SUGGESTS OTHERWISE.

7. THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE MEASURED WITH A HIGH INPUT IMPEDANCE VOLTMETER FROM THE POINT INDICATED TO CHASSIS GROUND UNDER THE FOLLOWING CONDITIONS:

- 1. NO SIGNAL INPUT
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- 3. VOLUME FULLY COUNTERCLOCKWISE
- 4. LOWEST FREQUENCY RECEIVER OSCILLATOR CRYSTAL SELECTED
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9. THIS SYMBOL INDICATES CHASSIS GROUND.

10. THIS SYMBOL INDICATES A CIRCUIT BOARD CONNECTOR PIN AND A FEMALE WIRE CONNECTOR.

11. THIS SYMBOL INDICATES A SOLDERED CONNECTION TO A CIRCUIT BOARD.

12. SEE TABLES 1 AND 2 FOR VOLTAGES.

13. THIS SYMBOL DESIGNATES A 5% TOLERANCE RESISTOR.

14. THIS SYMBOL DENOTES A COIL WOUND BY THE KIT BUILDER.

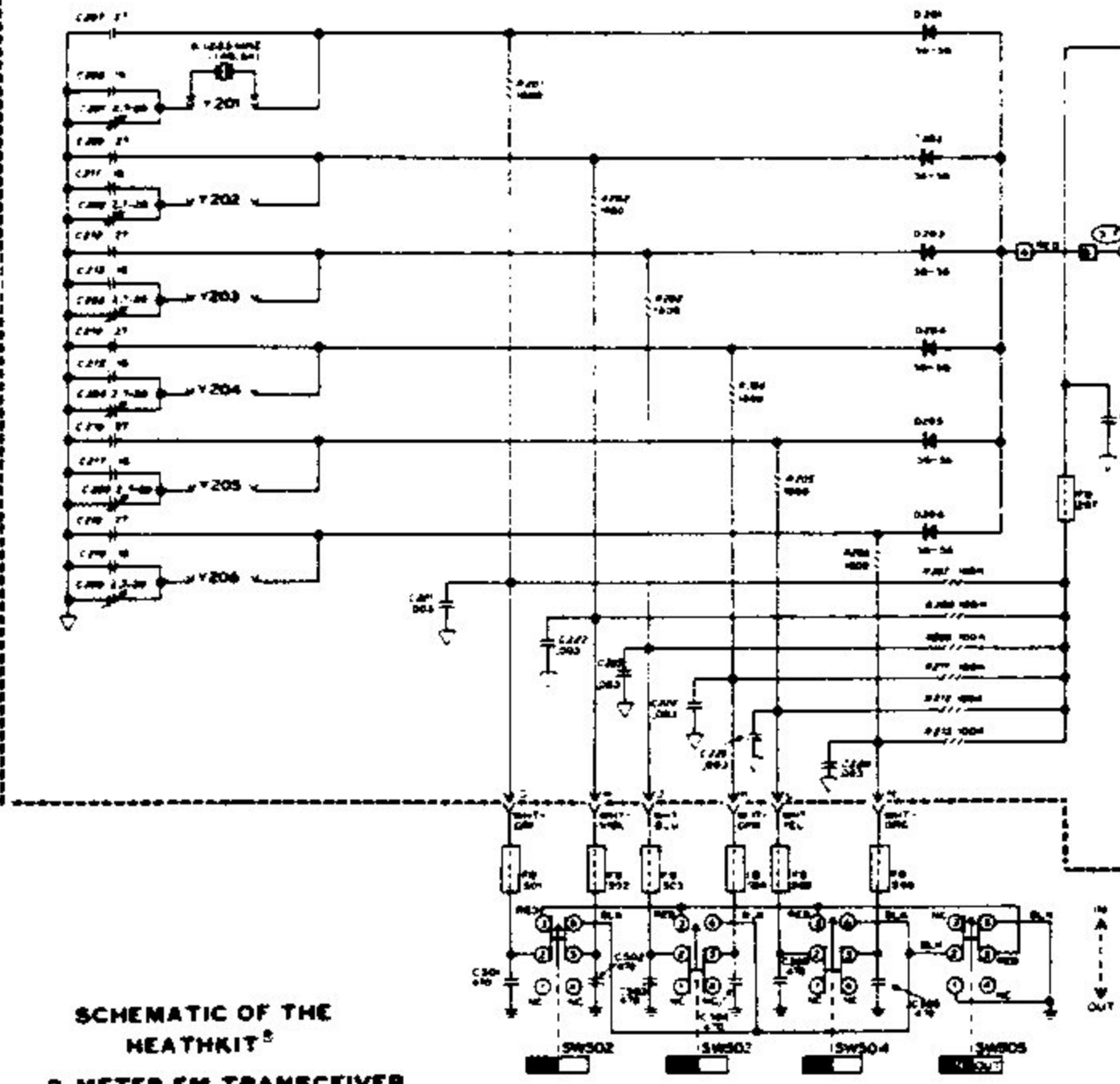
15. REFER TO THE "CHASSIS PHOTOGRAPHS" AND "CIRCUIT BOARD X-RAY VIEWS" FOR THE PHYSICAL LOCATION OF PARTS.

16. P301 AND J501 ARE MATING SIDE VIEWS.

17. TP-TEST POINT  
FB-FERRITE BEAD

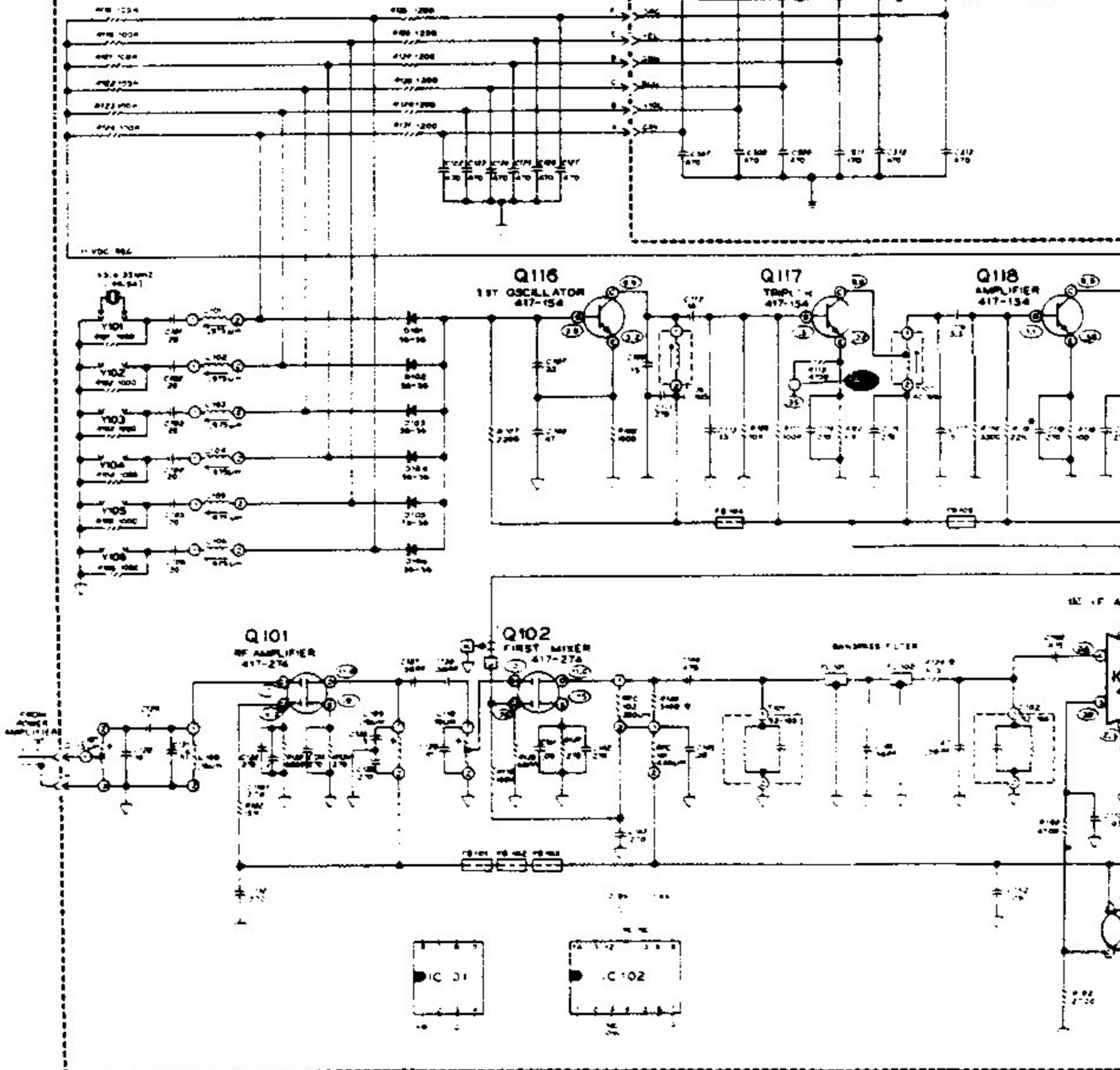
18. THIS SYMBOL INDICATES A RECTIFIED RF VOLTAGE MEASURED WITH A HIGH INPUT IMPEDANCE VOLTMETER. USE A 100K $\Omega$  RESISTOR IN SERIES WITH THE VOLTMETER PROBE.

TRANSMITTER CIRCUIT BOARD



SCHEMATIC OF THE  
HEATHKIT<sup>®</sup>  
2-METER FM TRANSCEIVER  
MODEL HW-202

RECEIVER CIRCUIT BOARD



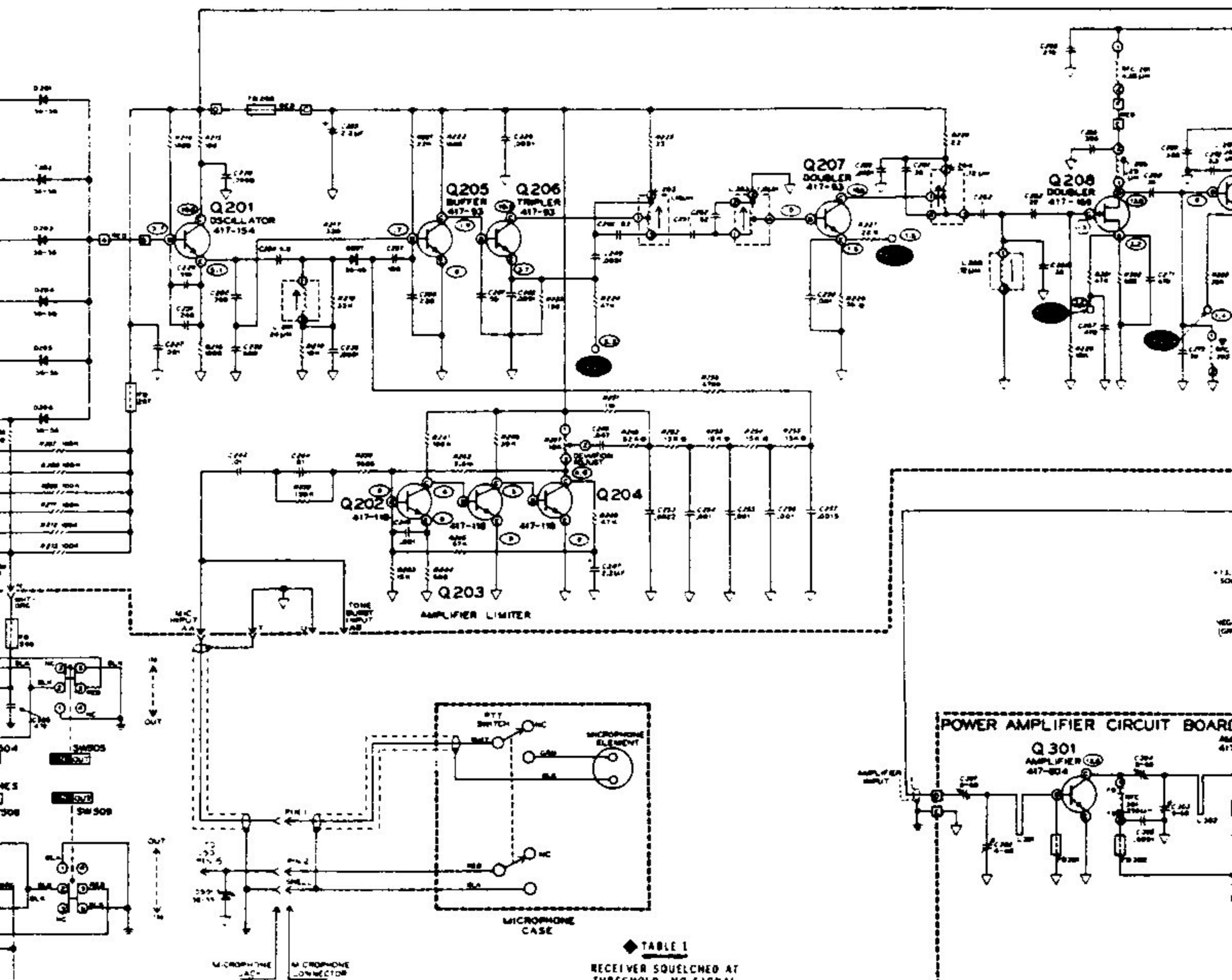


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Q120	1.0	1.5	10.6

